AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method of reducing flooding from a network device, comprising:

maintaining an unknown address and a count at a first port of the network device, the unknown address being a network address for which there is no information at the first port identifying another port of the network device to which unicast frames containing the unknown address are to be forwarded, the count identifying the number of times frames containing the unknown address have been flooded from the first port to other ports of the network device;

upon receiving a unicast ~~frames~~ frame containing the unknown address at the first port while the count is less than a predetermined threshold, incrementing the count and flooding the received ~~frames~~ frame to the other ports of the network device;

when the count has reached the predetermined threshold, determining whether there is information at a second one of the other ports of the network device identifying a specific one of the ports of the network device to which unicast frames containing the unknown address are to be forwarded, and if so then transferring the information from the second port to the first port, whereupon the unknown address becomes known at the first port; and

upon receiving unicast frames containing the now known address at the first port, forwarding the received frames to only the specific port identified in the information transferred from such other port to the first port.

2. (Original) A method according to claim 1, wherein maintaining the unknown address and the count at the first port comprises:

determining, upon flooding a unicast frame containing the unknown address, whether a bin has been established for the unknown address and the count; and

if the bin has not been established, then establishing the bin and initializing the count to one.

3. (Original) A method according to claim 2, wherein establishing the bin comprises determining whether a predetermined maximum number of bins have already been established, and establishing the bin only if the predetermined maximum number of bins have not already been established.

-2-

4. (Currently Amended) A method according to claim 1, further comprising:

maintaining a forwarding table at the first port, the forwarding table containing entries associating known addresses with corresponding ports;

upon receiving the unicast frame, searching the forwarding table using the address contained in the frame to determine whether the address is known at the first port; and

upon the transfer of the information from the second port, adding a corresponding entry to the forwarding table.

5. (Original) A method according to claim 4, further comprising participating in a periodic re-synchronization of the forwarding table with a forwarding table of the second port.

6. (Original) A method according to claim 1, further comprising monitoring how long the address and count are maintained, and upon maintaining the address and count for a predetermined maximum time before the count has reached the predetermined threshold, then discarding the address and count.

7. (Original) A method according to claim 1, wherein the first and second ports are included in an aggregated port appearing as a single logical port for frame forwarding purposes.

8. (Currently Amended) A network device, comprising:

a plurality of line cards, each line card including a respective port, two of the ports being configurable as an aggregated port forming a single logical connection to another device;

the port of a first one of the line cards being a first port operative to:

(i) maintain an unknown address and a count, the unknown address being a network address for which there is no information at the first port identifying another port of the network device to which unicast frames containing the unknown address are to be forwarded, the count identifying the number of times frames containing the unknown address have been flooded from the first port to other ports of the network device;

-3-

WEINGARTEN, SCHURGIN.
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290

(ii) upon receiving a unicast ~~frames~~ frame containing the unknown address from the
other device while the count is less than a predetermined threshold, increment the count and
flood the received ~~frames~~ frame to the ports of the other line cards;

(iii) when the count has reached the predetermined threshold, determine whether
there is information at the port of a second one of the line cards identifying a specific one of
the ports of the network device to which unicast frames containing the unknown address are
to be forwarded, and if so then obtain the information from the port of the second line card,
whereupon the unknown address becomes known at the first port; and

(iv) upon receiving unicast frames containing the now known address from the other
device, forward the received frames to only the specific port identified in the information
transferred from the port of the second line card to the first port; and
the port of the second line card being a second port operative to:

(i) receive unicast frames from ports of the other line cards and transmit the received
frames to the other device;

(ii) upon receiving unicast frames from ports of the other line cards, learn respective
associations between addresses in the received frames and the ports from which the frames
are received; and

(iii) provide the information concerning the unknown address to the first port from the
learned associations.

9. (Original) A network device according to claim 8, wherein the first port is further operative when
maintaining the unknown address and the count to:

determine, upon flooding a unicast frame containing the unknown address, whether a bin
has been established for the unknown address and the count; and

if the bin has not been established, then establish the bin and initialize the count to one.

10. (Original) A network device according to claim 9, wherein the first port is further operative
when establishing the bin to determine whether a predetermined maximum number of bins have

-4-

already been established, and establish the bin only if the predetermined maximum number of bins have not already been established.

11. (Currently Amended) A network device according to claim 8, wherein the first port is further operative to:

maintain a forwarding table at the first port, the forwarding table containing entries associating known addresses with corresponding ports;

upon receiving the unicast frame, search the forwarding table using the address contained in the frame to determine whether the address is known at the first port; and

upon the transfer of the information from the second port, add a corresponding entry to the forwarding table.

12. (Original) A network device according to claim 11, wherein the first port is further operative to participate in a periodic re-synchronization of the forwarding table with a forwarding table of the second port.

13. (Original) A network device according to claim 8, wherein the first port is further operative to monitor how long the address and count are maintained, and upon maintaining the address and count for a predetermined maximum time before the count has reached the predetermined threshold, then discard the address and count.

14. (Currently Amended) A network, comprising:

a plurality of stations;

a bridge coupled to a first subset of the stations; and

a network device coupled to the bridge and to a second subset of the stations via corresponding physical ports of the network device, the coupling between the network element device and bridge being in the form of an aggregated port including at least first and second physical ports, the network device being operative to:

-5-

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290

PAGE 7/9 * RCVD AT 10/13/2005 3:31:38 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/27 * DNIS:2738300 * CSID:6176950892 * DURATION (mm-ss):02-14

(i) maintain an unknown address and a count at the first port of the network device, the unknown address being a network address for which there is no information at the first port identifying another port of the network device to which unicast frames containing the unknown address are to be forwarded, the count identifying the number of times frames containing the unknown address have been flooded from the first port to other ports of the network device;

(ii) upon receiving ~~a~~ a unicast ~~frames~~ frame containing the unknown address at the first port while the count is less than a predetermined threshold, increment the count and flood the received ~~frames~~ frame to the other ports of the network device;

(iii) when the count has reached the predetermined threshold, determine whether there is information at the second port of the network device identifying a specific one of the ports of the network device to which unicast frames containing the unknown address are to be forwarded, and if so then transfer the information from the second port to the first port, whereupon the unknown address becomes known at the first port; and

(iv) upon receiving unicast frames containing the now known address at the first port, forward the received frames to only the specific port identified in the information transferred from such other port to the first port.

-6-